Background

As both employers and employees had expressed long-standing concern over the normal retirement age of 65 in the PERS, TRS and SERS Plans 2/3, the initial report summarized the history relevant to the formation and design of the Plans 2/3 with a focus on aspects of plan design that affect retirement eligibility. In addition, preliminary cost estimates were provided for lowering the normal retirement age from 65 to 60 and from 65 to 62. After the initial briefing the SCPP identified the following categories of options for further study and pricing: for PERS, TRS and SERS 2/3, modify the age and service requirements for unreduced retirement and reduce the early retirement reduction factors; and for TRS 2/3 only, expand opportunities to purchase out-of-state service credit. In addition, staff was directed to consider a funding option for benefit increases that would involve a 1% Plan 3 member contribution rate increase. The subsequent report identified options within the designated categories and provided preliminary pricing for each option; it also analyzed and priced the funding option.

Committee Activity

Presentations:

September 7, 2004 - Full Committee
October 19, 2004 - Full Committee
November 9, 2004 - Executive Committee

Subgroup Activity:

October 14, 2004 - Subgroup Meeting
November 5, 2004 - Subgroup Meeting

Recommendation to Legislature

See specific tabs entitled "Rule of 90," "TRS Service Credit Purchase," and "TRS Out-of-State Service Credit Purchase."

Staff Contact

Laura Harper, Senior Research Analyst/Legal
360-586-7616 – harper.laura@leg.wa.gov

Age 65 Retirement

(September 1, 2004)

Issue

Both employers and employees have expressed concern over the normal retirement age in the PERS , TRS and SERS Plans 2/3. The normal retirement age for these plans is currently set at age 65. As background information for this interim's initial work session on the issue, this report summarizes the history relevant to the formation and design of the Plans 2/3, with a focus on aspects of plan design that affect retirement eligibility. As part of this history, the report will summarize findings from the 1992 Plan 2 Retirement Age Report as Authorized by the Joint Committee on Pension Policy. This report will further examine why the Plans 2/3 have a normal retirement age of 65, and will identify the existing policies that would be impacted or changed if the retirement age were lowered. Preliminary cost estimates for lowering the retirement age from 65 to 60 and 62 are also provided.

Staff

Laura C. Harper, Senior Research Analyst/Legal
360-586-76166

Members Impacted

Lowering the normal retirement age would impact active and terminated-vested ("term-vested") members of the Plans 2 and 3 of the Public Employees' Retirement System (PERS), the Teachers' Retirement System (TRS) and the School Employees' Retirement System (SERS). The following table summarizes the numbers of participants in the Plans 2/3 based on the most recent actuarial valuation (using 2003 data) that would be impacted by a proposal to lower the normal retirement age:

	PERS 2	PERS 3	TRS 2	TRS 3	SERS 2	SERS 3
Active	114,876	17,411	7,507	47,109	20,748	27,226
Term-Vested	15,678	766	2,450	2,394	1,846	1,621

Current Situation

The Plans 2/3 have age-based retirement eligibility. To be eligible for normal retirement, members of the Plans 2/3 must be vested and must reach age 65. The Plans 2 are defined benefit plans, and the vesting period for these plans is five years. The Plans 3 are hybrid plans, with a defined benefit component and a defined contribution component. Plan 3 members are immediately vested in their defined contribution accounts, and become vested in the defined benefit portion of their benefit after ten years of service, or after 5 years of service if 12 months of service were accrued after attaining age 54.

History

The **Plan 1 systems** have service-based retirement eligibility and provide retirement benefits at ages prior to when members are expected to permanently leave the workforce. These plans were very costly due to the need to maintain an adequate benefit over 30 years or more. The **Plan 2** systems were created in 1977 in response to three major problems that were identified for the Plan 1 systems:

1. High cost of disability retirements in LEOFF Plan 1;
2. Increasing pressure for Cost-of-Living Adjustments (COLAs) in TRS and PERS; and
3. Increasing costs of the Plan 1 systems.

<u>See</u> Plan II Retirement Age Report as Authorized by the Joint Committee on Pension Policy, Washington State Legislature, October, 1992 (“1992 Report”).

Due to legal constraints, the Legislature then, as now, could not reduce benefits for current employees. Instead, new systems were intended to be designed in such a way as to minimize future risks, and hence costs. The creation of the Plan 2 systems was to generate significant costs savings for the State of Washington - an estimated $15.9 billion over a 25 year period according to projections at that time. Primarily, the savings were the result of the general fact that it is less costly to maintain an adequate retirement benefit over a shorter period of time. Also, Social Security and Medicare help augment benefits more quickly in plans with higher retirement ages.

The 1992 Report identified significant member dissatisfaction with the Plans 2. The most basic concerns appeared to be:

- Employee organizations believed their members should be able to collect a pension after completing a certain number of years of service ("service-based" retirement) rather than after permanently leaving the workforce ("age-based retirement").
- Employees who left prior to retirement did not feel they received "reasonable value" from the retirement system, creating pressure to allow early retirement as the only way to get value.
- The interest credited to member accounts had been less than market rates and the trust fund earnings.
- Members had almost no flexibility in the form and/or timing of their benefits.

In September of 1993, the Joint Committee on Pension Policy (JCPP) proposed retirement benefit policies in connection with discussions of a possible new "**Plan 3**" to "meet the needs of employees, retirees and employers within available resources." Joint Committee on Pension Policy Proposed Retirement Benefit Policies, September 1993. The policies inherent in the Plan 2 systems that would be continued were:

1. All state and local employees should have essentially the same retirement plans.
2. Retiree benefits should have some form and degree of protection from inflation.
3. Costs should be shared equally between employees and employers.

In addition, the JCPP would base any new plans or changes to the Plans 2 on the following additional policies:

Total Retirement Income

- Sufficient income after leaving the workforce should be from a combination of Social Security, retirement benefits and employees' savings.
- Employees must take responsibility for insuring that they have a sufficient income after retirement.

Purpose of Retirement Benefits

- Retirement benefits are intended to provide income after leaving the workforce.
- Employees who vest and leave should be provided reasonable value toward their ultimate retirement for their length of service.

Flexibility

- Retirees should have more flexibility in determining the form and timing of their benefit.
- Plan design should be as neutral as possible in its effect on employees:
  - It should not inhibit employees from changing careers or employers.
  - Employees should not be encouraged to stay in jobs they consider highly stressful.
  - Employees should not be encouraged to seek early retirement.

In 1995 the TRS Plan 3 Retirement System was created. The Plan became effective in 1996. The creation of TRS 3 was followed by creation of the SERS Plans 2/3 in 1998. These plans became effective in 2000. Finally, in 2000, an optional PERS 3 was enacted. It became effective in 2002.

The Plan 3 policies that were finally adopted by the legislature are found in RCW 41.34.010:

1. Provide a fair and reasonable value from the retirement system for those who leave public employment before retirement.
2. Increase flexibility for such employees to make transitions into other pubic or private sector employment.
3. Increase employee options for addressing retirement needs, personal financial planning, and career transitions.

4. Continue the legislature's established policy of having employees contribute to their retirement benefits.

Policy Analysis

In the Plans 2, the retirement age was established as the time when the member was presumed to leave the workforce. It broke with the well-established tradition within the Plans 1 of providing a retirement benefit after completion of a career. The policy rationale was that the retirement system was to provide a benefit for retirement when the member leaves the workforce and no longer draws a salary. This same philosophy was continued for the Plans 3. While members of these plans may extend their careers or pursue new career options, the retirement benefit is not paid until the member is presumed to have left the workforce.

Raising the normal retirement age in the Plans 2 and Plans 3 was in direct opposition to the national trend which for more than 20 years has been to reduce normal retirement ages. As reported to the SCPP at its May orientation by Ron Snell of the National Conference on State Legislatures, 26 of the 100 largest retirement systems allow retirement at age 62 with 5 or more years of service, and 56 systems allow normal retirement at age 60 with 5 or more years of service. Also, 56 of the largest 100 systems allow early retirement (with reduced benefits) at age 55 with 5 or more years of service.

A review of the handbooks and websites for Washington's comparative public employee retirement systems revealed a range of normal retirement ages as summarized in the following table. Normal retirement ages are considered for the purposes of this comparison to be those at which members will receive unreduced retirement benefits. Early retirement provisions are not included within this comparison. The following table summarizes the age and service requirements for normal retirement in the open plans within the comparative systems.

Normal Retirement Age Comparisons

Retirement System	**Normal Retirement Age/ Years of Service**
CalPERS	63*
CalSTERS	60/1
Colorado (PERA)	50/30, 60/20, 65/5
Florida Retirement System	62/6, Any age/30
Idaho (PERSI)	65/5
Iowa (IPERS)	65, 62/20, Rule of 88
Minnesota State Retirement System	66 *(65 if born before 1938)*
Missouri (MOSERS)	65/4 *(active)*, 65/5, 60/15, Rule of 80 *(at least age 48)*
Ohio PERS	65/5, *(Traditional and Combined Plans)*, 55 *(Member Directed Plan)*
Oregon Public Service Retirement Plan *(for those hired after 8/28/03)*	65, 58/30
City of Seattle	62/5, 60/20, Rule of 80 from age 52-59, Any age/30

**2.5% benefit factor at age 63, 2.0% benefit at 55/5*

Both employers and employees in Washington have expressed concern over the normal retirement age in the Plans 2/3. At the May 18, 2004 Orientation, "age 65 retirement" was listed as the number 3 priority for the SCPP. Also, "working until age 65" is one of the issues that the SCPP forwarded from last year for study during the 2004 interim.

Why age 65?

The 1992 Report identified age 65 as the generally accepted full (or normal) retirement age as established by Social Security. Today the full retirement age under Social Security is increasing. As explained on the Social Security Administration's website, www.ssa.gov, Americans are living longer, healthier lives and can expect to spend more time in retirement than their parents and grandparents did. See also Adequacy of Benefit, Report to the SCPP, June 2004 for more information on the aging workforce. Today Social Security's full retirement age of 65 applies only to those born in 1937 or earlier. For those born after 1937, a full retirement age schedule has been adopted. The later the birthday, the later the full retirement age. For example, those who are born in 1960 and later have a full retirement age of 67. Persons covered by Social Security can retire as early as 62, but their benefits are reduced to take into account the longer period of time they will receive them.

Year of Birth	Full Retirement Age
1937 or earlier	65
1938	65 and 2 months
1939	65 and 4 months
1940	65 and 6 months
1941	65 and 8 months
1942	65 and 10 months
1943-1954	66
1955	66 and 2 months
1956	66 and 4 months
1957	66 and 6 months
1958	66 and 8 months
1959	66 and 10 months
1960 and later	67

Plan 2/3 Tradeoffs

The Plan 2/3 designs incorporated two benefits that were not available to members of the Plans 1:

1. An annual cost-of-living adjustment after one year of retirement based on the CPI-Seattle to a maximum of 3%; and

2. Removal of the 60% cap on average final compensation (AFC).

These benefits reflected a tradeoff. Members would have shorter retirement periods than they would have had under the service-based Plans 1, but would enjoy increased financial security. Not only would Plan 2/3 members' purchasing power be protected throughout retirement by a stable and predictable COLA, but also members of the Plans 2/3 would be rewarded for working into their later years by allowing them to earn an increased monthly retirement benefit.

Figures 1-4 compare PERS 1 and PERS 2 plan provisions based on a hypothetical retiree with salary increases of 4.5% per year prior to retirement, inflation at 3.5% annual rate (actuarial assumption) and social security (SSI) beginning at age 66 when the member would receive an unreduced benefit. These figures illustrate that while PERS 2 can't replace as great a share of salary as PERS 1 at early retirement ages, it can at later ages, and at all ages it maintains a more constant benefit.

Figure 1
PERS & SSI Benefits as a % of Final Pay
After 25 Years of Service at Age 55

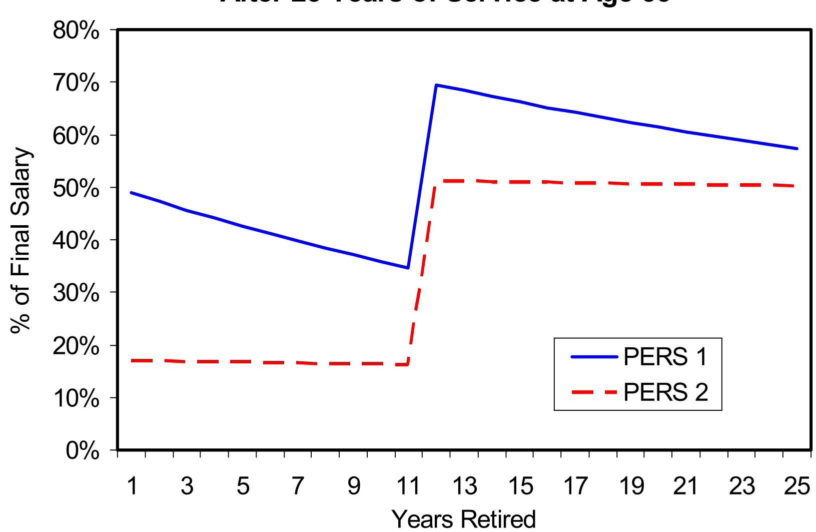


Figure 2
PERS & SSI Benefits as a % of Final Pay
After 30 Years of Service at Age 55

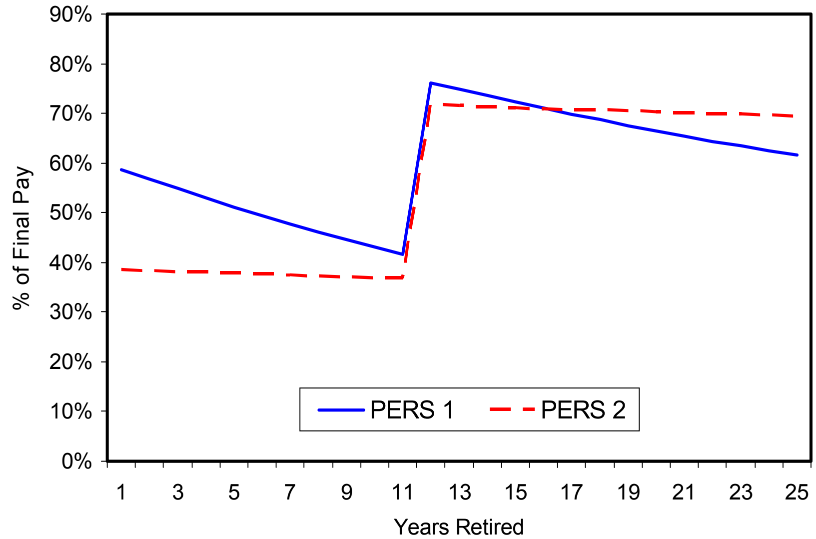


Figure 3
PERS & SSI Benefits as a % of Final Pay
After 30 Years of Service at Age 60

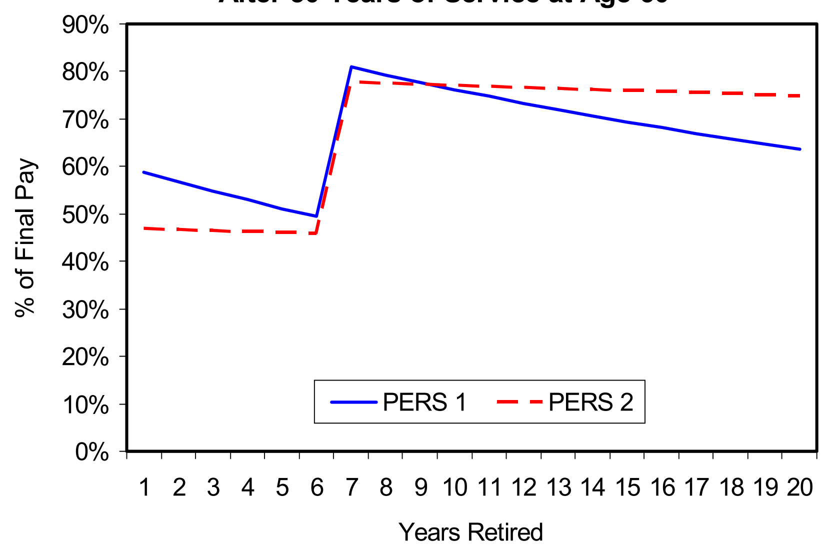
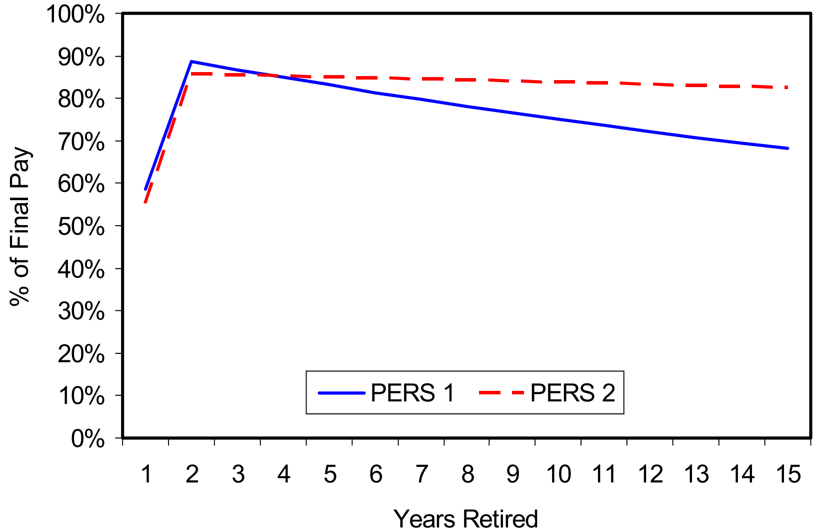


Figure 4
PERS & SSI Benefits as a % of Final Pay
After 30 Years of Service at Age 65



"Golden Handcuffs"

The Plans 2 adopted what is known as a "golden handcuffs" design. This means that they provide relatively little value for employees who leave service prior to retirement and they provide great value to employees who work until age 65. Under this type of design, the most commonly sought way for members with significant years of service to obtain value from this type of retirement plan without remaining in the system until age 65 is to seek a lowering of the retirement age so they can receive an immediate benefit on termination. This can be accomplished through early retirement windows or plan amendments that permanently reduce the retirement age.

In contrast, members of service-based plans commonly seek opportunities to be rehired after retirement. This has been true in Washington state, as Plan 1 members and employers have taken the lead on initiatives to allow post-retirement employment.

Early Retirement

The service-based Plans 1 provided for normal retirement upon the fulfillment of one of the following:

1. five years of service and attainment of age 60;
2. 25 years of service and attainment of age 55; and
3. 30 years of service (at any age).

There are no provisions for early retirement of PERS 1 members, as the Plans 1 are designed to allow normal retirement upon completion of a career.

As discussed in the history section, the Plans 2/3 were designed to discourage early retirement and encourage working until age 65. Originally, the Plans 2 provided for early retirement, but completely at the member's cost. Members could seek early retirement after 20 years of service and attainment of age 55, with the benefit being actuarially reduced from age 65. Later (in 1991) a compromise was added whereby members who worked 30 years (instead of 20) and reached age 55 could qualify for "alternate early retirement." The reduction for alternate early retirement is not completely born by the member, as it involves a 3% per year reduction from age 65 rather than the full actuarially equivalent reduction.

The following table from the Department of Retirement Systems' website shows the approximate effect of the early retirement reductions:

PERS, TRS and SERS Plan 2/3
Early Retirement Reduction Factors

Age at Retirement	20-29 Years of Service Credit, Benefit as % of Age 65 Benefit	30 Years of Service Credit or More, Benefit as % of Age 65 Benefit
55	37%	70%
56	40%	73%
57	43%	76%
58	49%	79%
59	55%	82%
60	61%	85%

Age at Retirement	20-29 Years of Service Credit, Benefit as % of Age 65 Benefit	30 Years of Service Credit or More, Benefit as % of Age 65 Benefit
61	67%	88%
62	73%	91%
63	82%	94%
64	91%	97%
65	100%	100%

Provisions for early and alternate early retirement were carried forward into the design of the Plans 3. As a general matter, the Plan 2/3 members who retire early experience a significantly reduced income replacement ratio for their defined benefit. See Adequacy of Benefits Report to the SCPP, June 2004. Term-vested members of Plan 3 who leave employment early were given additional flexibility to protect their accrued benefit without taking early retirement: Plan 3 members with at least 20 service credit years who separate from service will have their pension benefits increased by 0.25% per month, or approximately 3% for each year they delay receiving benefits until age 65. Also, Plan 3 members can plan for early retirement at their own expense by increasing their member contributions. Conversely, in down markets (assuming they are physically able), Plan 3 members can work past 65 and continue to improve their benefits.

Portability

Portability refers to the ability to maintain the value of retirement benefits earned for past employment when changing jobs prior to retirement. Members of the Plans 2 are discouraged by the plan design from changing careers to new jobs covered by other retirement systems unless those systems are included in Washington's portability statute. The portability statute allows members to combine service credit with that earned in certain other Washington state retirement systems in order to qualify for retirement. Those systems include TRS, PERS, the Statewide City Employees' Retirement System, SERS, the Washington State Patrol Retirement System, Plan 2 of the Law Enforcement Officers' and Firefighters' Retirement System, the city employees' retirement systems for Seattle, Tacoma and Spokane, and staring July 1, 2006, the Public Safety Employees' Retirement System.

The Plans 3 repeat most of the design features of the Plans 2, but add more portability due to the fact that members are immediately vested in the defined contribution portion of their benefit. Thus Plan 3 members can leave prior to vesting, work for any employer, and still receive 100% of the value of their employee contributions plus earnings. Also, as mentioned above, members with 20 service credit years may leave service and have their pension benefits increased 0.25% per month, or approximately 3% for each year they delay receiving benefits until age 65 ("indexed term-vested benefit").

Pension plans may also address portability of benefits by authorizing members to **purchase service credit** for years of work that the individual would otherwise lose. For example, a teacher may work only two years in a state that requires five years of work before the teacher will be eligible, sometime in the future, for a pension. If the teacher moves to another state with a service-based retirement plan that requires 30 years of service to receive a full pension, then at 28 years of service, that teacher could purchase the service credit for the two additional years of teaching in the first state and have the 30 years needed to receive a full pension.

Washington's Teachers' Retirement Plans currently allow members to elect to use service credit earned in an out-of-state retirement systems solely for the purpose of determining the time at which the member may retire. The benefit is actuarially reduced to recognize the difference between the age a member would have first been able to retire based on service in Washington and the member's retirement age. <u>See</u> RCW 41.32.065. Out-of-state service may also be used to meet alternate early retirement requirements, which would result in the use of a 3% per year early retirement reduction factor (ERF) instead of an actuarial ERF.

Example: A member age 55 with 25 years of Washington state service credit and 5 years of out-of-state service credit is assessed 10 years worth of reductions (since he/she needs 10 years to reach age 65). The member can use 5 years of out-of-state service credit to qualify for an alternate early retirement, but the 5 years does not count as membership service for benefit purposes. Instead DRS would use actuarial early retirement reductions for the first 5 of the 10 years and the 3% alternate early retirement reduction for the remaining five years. The effect on the monthly benefit is shown below:

2% x 25 years x $6,500 (AFC) = $3,250
x .61 (% of benefit using actuarial ERF) = $1,982.50
x .85% (% of benefit using 3% ERF) = **$1,685.12**

The out-of-state service-credit-purchase approach to portability has not been incorporated into the PERS and SERS Plans. However in the PERS and SERS Plans 2/3, service credit purchases can be used to offset other reductions in benefits. See SSB 6251/HB 2535, Ch. 172, Laws of 2004) that was passed to allow these Plan 2/3 members who apply for early retirement to make a one-time purchase of up to five years of additional service credit at actuarial cost. While the service credit is not membership service, it can be used to help offset the benefit reductions for early retirement.

Alternative Approaches Considered Prior to Adoption of the Plans 3

The Joint Committee on Pension Policy studied five approaches to changing the Plans 2 prior to the creation of the Plans 3:

- 1a) lower the normal retirement age, and 1b) reduce early retirement reduction factors;
- 2) increase career mobility and allow limited payments prior to normal retirement;
- 3) allow employees the opportunity to choose their normal retirement age with the employee contribution reflecting the cost of the plan chosen;
- 4) create a new hybrid plan; and
- 5) create a new defined contribution plan.

The first three approaches would modify the existing Plan 2 design. The last two approaches would require new Plans 3.

Approach No. 1A: ***Lower Normal Retirement Age***

The 1992 Report examined the option of lowering the normal retirement ages for the Plans 2 to the Plan 1 retirement ages (age 60 with five years of service, age 55 with 25 years or at any age with 30 years). At that time the option was identified as a "high cost" item that would cause contribution rates to increase substantially. Less costly variations on this proposal were also considered: a 3-year reduction in the normal retirement age and a 5-year reduction. According to surveys conducted at the time, the majority of Plan 2 members expressed a willingness to pay higher employee contribution rates of between 2 and 2.5% in exchange for normal retirement at age 60 instead of 65.

Lowering the normal retirement age, however, was ultimately rejected. The 1992 Report identified two major ways that lowering the normal retirement age would depart from Plan 2 policies:

- retirement benefits would no longer be paid only at an age when employees are generally presumed to permanently leave the workforce; and
- retirees might not receive an adequate initial benefit (due to less service) and the purchasing power of the initial benefits would not be as well protected for the longer retirement period.

Approach No. 1(B): Significantly ***Reduce Early Retirement Reduction Factors***

This approach would have kept the Plan 2 normal retirement age, but lowered the early retirement adjustment factors from a full actuarial adjustment (about 7-9 % per year) to 1% per year. The eligibility criteria for early retirement under this alternative would have stayed the same: age 55 with 20 years of service for PERS and TRS 2. The change would have allowed eligible Plan 2 members to retire up to 10 years prior to the "normal" retirement age without a significant reduction in benefits. The following examples show the impact on the annual pension benefit of the actuarial early reduction factor (ERF) as compared to a 1% ERF:

<u>TRS 2 member retiring at age 55 using actuarial ERF:</u>
Age 65 - 55 = 10 years
63% reduction
$40,000 x 25 years x 2% = $20,000 x .37
Annual Benefit = **$7,400**

<u>TRS 2 member retiring at age 55 using 1% ERF:</u>
Age 65 - 55 = 10 years
10% reduction
$40,000 x 25 years x 2% = $20,000 x .90
Annual Benefit = **$18,000**

Again, this alternative was identified as "high cost" in the 1992 Report. The same two departures from Plans 2 policies were identified for this alternative as for lowering the retirement age: retirement benefits would be paid prior to when employees were expected to permanently leave the workforce, and it would be less certain that the benefit would be adequate to maintain the retiree's standard of living throughout the period of retirement. This alternative was ultimately rejected.

Approach No. 2: ***Increase Career Mobility and Allow Limited Payments Prior to Retirement***

Several options were studied under this approach. The first option was to provide **automatic increases for vested benefits**. Upon separation from covered employment with 20 or more years of service, Plan 2 members who leave their contributions with the system would have their benefit increased each year during the period between termination and retirement. The annual increase would be based on the same formula as the Plan 2 COLA - the change in the Seattle CPI, up to 3% per year. The member would not begin receiving the benefit until the normal retirement age of 65.

The purpose of this benefit was to help ensure that long-service employees who leave covered positions receive a benefit at the normal retirement age that has increased to keep up with inflation. It would reduce the financial penalty incurred by employees who move to positions in the private sector, or other positions not covered by Washington's portability statutes. This benefit was ultimately adopted for the defined benefit component of the Plans 3.

Another alternative under this approach was to **expand the coverage of the portability statute** to include LEOFF 2 and the Seattle, Tacoma and Spokane employee retirement systems. This would make it possible for employees to change jobs to a wider range of public sector positions while maintaining value for their early years of service. These changes were ultimately adopted as amendments to RCW 41.54.010.

Another alternative was studied that would **credit member contributions with interest** at a rate which more closely reflects market rate interest. This would be accomplished by methods such as crediting accounts with the average return earned by medium or long-term government bonds, or the five-year average returns earned by the State Investment Board. The main purpose of this change would be to increase the perceived value of the retirement system for younger employees and to respond to the most frequent active members' complaint at that time. It would also increase the amount of benefits employees might be able to collect early in connection with job transitions as well as the amount such members could withdraw at retirement. Ultimately this alternative was rejected as a Plan 2 modification but was largely incorporated into the Plans 3 as the defined contribution component of these hybrid plans.

An **"optional job/retirement transition benefit"** was considered for Plan 2 members with twenty of more years of service. These members would be paid a monthly income from their accumulated contributions under two circumstances:

1. 50% of pay for up to two years, while training for a new career or on a sabbatical break (job transition benefit); or
2. up to 50% of pay, or the member's accrued benefit, when leaving the work force between age 60 and 65 (retirement transition benefit for PERS and TRS Plans 2 only).

The member would receive a reduced benefit at retirement to reflect the member contributions paid out before normal retirement age. The reduced benefit could be actuarially equivalent or could be partially subsidized. Both benefits would permit a member to receive payment of all or part of their member contributions prior to retirement, without destroying their eligibility for a benefit provided by the employer. The income from this benefit could also "bridge" the period between age 60 and when the retiree receives Social Security. This alternative was not adopted.

A **"phased retirement" benefit** was also considered. Under this proposal, Plan 2 members could work half-time and at the same time collect 50% of their accrued retirement allowance, for up to three years prior to full retirement. The members would have to be age 62 or older and enter into a contract for half-time service with their employers. At full retirement, the member's benefit would be reduced to adjust for payments made prior to the normal retirement age. If a full actuarial reduction were made, there would be no cost to the system. This approach was not adopted.

Finally, the 1992 Report considered allowing those in Plan 2 the option to **withdraw** their **member contributions plus interest at retirement** as had been allowed for members of TRS 1. The retirement allowance would be actuarially reduced to reflect the value of the withdrawn contributions. This alternative was not implemented.

Approach No. 3: ***Allow Employees to Choose Between Three Different Retirement Plans, Each with Benefits Similar to the Plan 2 Systems, Except for Different Normal Retirement Ages***

Under this approach, three new retirement plans would be created that were similar to PERS 2, but each would have a different normal retirement age: Tier 3A - age 65; Tier 3B - age 60; and Tier 3C - age 55. Employees would have the option of selecting which plan they wished to be covered under, but would pay higher contribution rates for service earned under the plans with earlier retirement ages. Benefits would be portable, and employees would be given frequent opportunities to move between the different plans. This approach was rejected. Like the alternatives in Approach No. 1, this approach would depart from Plan 2 policies in that retirement benefits would no longer be paid only at an age when employees were generally presumed to permanently leave the workforce, retirees who elected the age 55 plan may not receive an adequate initial benefit (due to service), and the purchasing power of the initial benefit would not be as well-protected for the longer retirement period.

Approach No. 4: ***Replace the Plan 2 Systems with New "Split Plans"*** *which Reflect Typical Private Sector Federal Employees Retirement System Plan Design.*

This approach involved creating a new retirement system which would include both a defined benefit pension and a defined contribution account. The design would provide a balance between the policy goals promoted by defined benefit plans and defined contribution plans. The hybrid plan model was ultimately adopted for the Plans 3.

Approach No. 5: ***Replace Plan 2 Systems with Defined Contribution Plan***

This approach would provide a source of retirement savings which would be highly portable for employees who switched jobs prior to normal retirement age. However employees would take on the risk of poor investment returns, and employees who provided identical periods of service would receive different retirement benefits. In other words, this approach was deemed more flexible, but riskier. The responsibility for the long-term financial security would be shifted largely to the retiree. Management of risks associated with longevity (i.e., the danger of outliving one's benefit) would also shift to the retiree. The 1992 Report indicated that for a given level of funding, retirees would receive smaller benefits in a defined contribution plan than under the defined benefit design. Employer contribution rates, however, would be stable and predictable. This approach was not adopted.

In summary, the Joint Committee on Pension Policy studied many alternatives to the Plan 2 design prior to recommending the creation of the Plans 3. Despite the fact that employees had identified the Plan 2 retirement age as one of their top concerns, the designs of the Plans 2 and 3 retained the primary policy of withholding the retirement pension until the age at which the member is presumed to permanently leave the workforce - that is, age 65. Lowering the normal retirement age would depart from that established policy.

Estimated Cost of Lowering the Normal Retirement Age in the Plans 2/3

Lowering the normal retirement age in the Plans 2/3 will impact the required actuarial contribution rates as shown below. As a result of higher contribution rates, increases in funding expenditures are also projected.

Estimated Cost of Lowering Retirement Age from 65 to 60

	PERS	SERS	TRS	Total
Increase in Contribution Rates				
Employee *(Plan 2 Only)*	2.71%	2.85%	2.85%	
Employer	2.71%	2.85%	2.85%	
Costs (in millions):				
2005-2007 Biennium				
State:				
General Fund	$ 82.5	$ 40.2	$ 174.0	$ 296.7
Non-General Fund	136.3	0.0	0.0	136.3
Total State	**$ 218.8**	**$ 40.2**	**$ 174.0**	**$ 433.0**
Local Government	194.0	35.6	35.7	265.3
Total Employer	412.8	75.8	209.7	698.3
Employee	$ 382.0	$ 19.5	$ 9.2	$ 410.7
2005-2030 25 Years				
State:				
General Fund	$ 2,322.6	$ 1,191.4	$ 4,734.0	$ 8,248.0
Non-General Fund	3,832.5	0.0	0.0	3,832.5
Total State	**$ 6,155.1**	**$ 1,191.4**	**$ 4,734.0**	**$ 12,080.5**
Local Government	5,458.4	1,055.5	969.8	7,483.7
Total Employer	11,613.5	2,246.9	5,703.8	19,564.2
Employee	$ 11,517.8	$ 112.8	$ 23.3	$ 11,653.9

Estimated Cost of Lowering Retirement Age from 65 to 62

	PERS	SERS	TRS	Total
Increase in Contribution Rates				
Employee *(Plan 2 Only)*	1.70%	1.64%	1.53%	
Employer	1.70%	1.64%	1.53%	
Costs (in millions):				
2005-2007 Biennium				
State:				
General Fund	$ 51.8	$ 23.2	$ 93.4	$ 168.4
Non-General Fund	85.4	0.0	0.0	85.4
Total State	**$ 137.2**	**$ 23.2**	**$ 93.4**	**$ 253.8**
Local Government	121.6	20.6	19.1	161.3
Total Employer	258.8	43.8	112.5	415.1
Employee	$ 239.6	$ 11.3	$ 4.9	$ 255.8
2005-2030 25 Years				
State:				
General Fund	$ 1,457.0	$ 685.9	$ 2,541.5	$ 4,684.4
Non-General Fund	2,404.2	0.0	0.0	2,404.2
Total State	**$ 3,861.2**	**$ 685.9**	**$ 2,541.5**	**$ 7,088.6**
Local Government	3,424.3	608.5	520.2	4,553.0
Total Employer	7,285.5	1,294.4	3,061.7	11,641.6
Employee	$ 7,224.7	$ 64.8	$ 12.3	$ 7,301.8

Funding Policies of the Plans 2/3

Reducing the normal retirement age for the Plans 2/3 may have implications for the funding policies of the plans. With respect to **cost-sharing**, current funding policy presumes that costs should be shared equally between employers and employees. <u>See</u> Joint Committee on Pension Policy proposed polices for new Plan 3, September 1993. As shown in the previous section of this report, reducing the normal retirement age is a high-cost proposition. Thus, in order to facilitate enactment of such a proposal, there may be some need to adjust the policy to accommodate the increased cost. For example the SCPP has seen at least one proposal that would increase the Plan 3 employee contribution rate to pay for increased benefits.

The other significant funding policy implication relates to liability for benefits payable as the result of past service. By lowering the retirement age, **liabilities for past-service benefits are increased** due to the fact that their cost cannot be recovered over as long of a period of time. As provided in the actuarial funding chapter, Chapter 41.45 RCW, all benefits for Plan 2 and 3 members are to be funded over the working lives of those members and paid by the taxpayers who receive the benefits of those members' services. See RCW 41.45.010(4). For those members who have worked part of their careers, the benefits they have already earned must be paid for over the remainder of their careers. If the length of these careers is shortened due to the creation of a lower normal retirement age, liabilities are increased at the same time that the period to collect the funds to pay for the benefit improvement is shortened (a "double whammy").

Proposals Affecting Retirement Eligibility

Many proposals have been made to the SCPP for study during the 2004 interim. Because some of them specifically affect retirement eligibility, they may be viewed as alternatives or companions to options for reducing the normal retirement age. Estimated costs for these proposals are not provided as part of this initial report. The proposals include:

- Normal retirement with an age/service combination of 85 (rule of 85).
- Normal retirement at any age with 35 or 30 years of service.
- Eliminating the actuarial reduction factors for early retirement and replacing them with a uniform 3% per year reduction factor.
- Increasing the Plan 3 defined benefit from 1% to 1.5% to address adequacy concerns.
- Changing the Plan 3 vesting period from 10 to 5 years.
- Eliminating the early retirement reduction factor for permanent disability.
- Expanding the indexed term-vested benefit (currently 3% per year for Plan 3 members with 20 years of service credit).
- Providing for the purchase of up to 10 years of service credit for teaching in American public schools (state and federal) using a cost formula that is less than actuarial cost.
- Merging Plans 2 and 3 into a new plan.

If, as the result of this background briefing, the SCPP decides to pursue options related to normal retirement eligibility within the Plans 2/3, the above proposals may be viewed as possible options for further discussion that may be added to the most obvious options of reducing the normal retirement age from 65 to some lower age (e.g. 62 or 60).

Conclusion

Service-based plans usually result in earlier retirements, higher costs, and pressures to allow post-retirement employment. Age-based plans usually result in later retirement ages, lower costs, and pressures to allow retirement at earlier ages. Washington started with service or career-based plans and moved to age-based plans in 1977 in order to reduce costs. Lowering the normal retirement age would be consistent with national trends and would help address long-standing employer and employee concerns with the retirement age.

Lowering the normal retirement age would also be a departure from the policy that is currently the cornerstone of the Plans 2/3 - that is, to provide a retirement benefit when the member is presumed to have permanently left the workforce and that is at or near the age when Social Security and Medicare will pick up a significant portion of retiree costs. Lowering the normal retirement age in the Plans 2/3 would move toward a retirement philosophy that is more career-based than age-based, and would result in significantly increased costs.

Age 65 Retirement Options

(October 12, 2004)

Issue

Both employers and employees have expressed concern over the normal retirement age in the Public Employees' Retirement System (PERS) Plans 2/3, the Teachers' Retirement System (TRS) Plans 2/3 and the School Employees' Retirement System (SERS) Plans 2/3. The normal retirement age for these plans is currently set at age 65. After its work session and briefing on this issue on September 7, 2004, the SCPP identified the following categories of options for further study and pricing: for PERS, TRS and SERS Plans 2/3, modify the age and service requirements for unreduced retirement and reduce the early retirement reduction factors; and for TRS 2/3 only, expand opportunities to purchase out-of-state service credit. In addition, staff was to directed to consider what a 1% Plan 3 member contribution rate increase would provide in terms of funding benefit increases.

Staff

Laura C. Harper, Senior Research Analyst/Legal
360-586-7616

Members Impacted

The following table summarizes the numbers of participants in the Plans 2/3 based on the most recent actuarial valuation (using 2003 data).

	PERS 2	PERS 3	TRS 2	TRS 3	SERS 2	SERS 3
Active	117,262	17,548	7,637	47,263	21,504	27,710
Term-Vested	16,089	770	2,493	2,418	1,902	1,648

Current Situation

With respect to **retirement eligibility**, the Plans 2/3 are age-based plans. To be eligible for normal retirement, members of the Plans 2/3 must be vested and must reach age 65. The Plans 2 are defined benefit plans, and the vesting period for these plans is five years. The Plans 3 are hybrid plans, with a defined benefit component and a defined contribution component. Plan 3 members are immediately vested in their defined contribution accounts, and become vested in the defined benefit portion of their benefit after ten years of service, or after 5 years of service if 12 months of service were accrued after attaining age 54.

With respect to the **early retirement reduction factors**, it is important to distinguish early retirement and "alternate early retirement." Currently in the Plans 2/3, members may seek early retirement after 20 years of service and attainment of age 55 with the benefit being actuarially reduced from age 65. The actuarial reduction factors are applied so that the early retirement does not cost the retirement system more than it would have had the member worked until the specified normal retirement age. In other words, since the benefit is being paid over a longer period of time, the member must take a lower benefit that is worth the same in assumed total benefit dollars as if it had been taken at normal retirement age.

Members who work 30 years (instead of 20) and reach age 55 may qualify for alternate early retirement. Alternate early retirement is not cost-neutral, as it involves a 3% per year reduction rather than the full actuarially equivalent reduction. In other words, longer service is rewarded in that the member who works thirty years is not required to take a benefit that is equivalent to the benefit the member would have received at age 65. Instead, the member takes some reduction for the fact that the pension is being paid over a longer period of time, but the total benefit is greater than if the member had waited until age 65.

The following table from the Department of Retirement Systems' website shows the approximate effect of the current early retirement reduction factors on the retirement benefit received.

PERS, TRS and SERS Plan 2/3 Early Retirement Reduction Factors		
Age at Retirement	**20-29 Years of Service Credit, Benefit as % of Age 65 Benefit**	**30 Years of Service Credit or More, Benefit as % of Age 65 Benefit**
55	37%	70%
56	40%	73%
57	43%	76%
58	49%	79%
59	55%	82%
60	61%	85%
61	67%	88%
62	73%	91%
63	82%	94%
64	91%	97%
65	100%	100%

With respect to the opportunity to purchase **out-of-state service credit** in the TRS Plans 2/3, members may currently elect to use service credit earned in an out-of-state retirement system solely for the purpose of determining the time at which the member will retire. The benefit is actuarially reduced to recognize the difference between the age a member would have first been able to retire based on service in Washington and the member's retirement age. See RCW 41.32.065. Out-of -state service may also be used to meet alternate early retirement requirements, which would result in the use of a 3% per year early retirement reduction factor (ERRF) instead of an actuarial ERRF.

Example: A member age 55 with 25 years of Washington state service credit and 5 years of out-of-state service credit is assessed 10 years worth of reductions (since he/she needs 10 years to reach age 65). The member can use 5 years of out-of-state service credit to qualify for an alternate early retirement, but the 5 years does not count as membership service for benefit purposes. Instead the Department of Retirement Systems (DRS) would use actuarial early retirement reductions for the first 5 of the 10 years and the 3% alternate early retirement reduction for the remaining 5 years. The effect on the monthly benefit is shown below:

2% x 25 years x $6,500 (AFC) - $3,250
x .61 (% of benefit using actuarial ERRF) = $1,982.50
x .85% (% of benefit using 3% ERRF) = **$1,685.12**

Another way to utilize out-of-state retirement benefits in TRS is to purchase additional benefits with a rollover from an out-of-state retirement plan. The resulting contribution to the member reserve is actuarially converted to a monthly benefit at the time of retirement. See RCW 41.32.067. This cash-based approach has been in effect since 1992, and seeks to avoid the pension costs associated with giving lifelong benefits at a reduced cost.

Finally, with respect to **Plan 3 member contributions**, the current situation is that members of the Plans 3 contribute 100% of their employee contributions into their own defined contribution accounts. The defined benefit portion of the Plan 3 benefit (which represents one-half of the Plan 2 defined benefit) is funded solely by employers. Thus, currently, Plan 3 member contributions are not used to fund benefit increases involving the defined benefit.

Options that Expand Opportunities for an Unreduced Retirement in the Plans 2/3

Option 1: "Rule of 90" for unreduced retirement

A "rule of 90" would allow members to receive an unreduced retirement benefit when they reach any combination of age and service that totals 90. For example, an employee who became a plan member at age 20 could retire at age 55 with 35 years of service. Similarly, a plan member who began working at age 30 could retire at age 60 with a full benefit. Those who become plan members at age 40 or later would not benefit from the rule of 90, as there would be no combination of age and service that could result in a full retirement benefit earlier than age 65, the current normal retirement age for the Plans 2/3.

The following table illustrates the operation of a rule of 90 for any retirement system.

Illustration of Rule of 90			
Age of Hire	Years of Service	Retire Age	Age Plus Years of Service
20	35	55	90
22	34	56	90
24	33	57	90
26	32	58	90
28	31	59	90
30	30	60	90
32	29	61	90
24	28	62	90
36	27	63	90
38	26	64	90
40	25	65	90

This approach would move toward a more career-based retirement benefit in that younger workers would be rewarded for long-term public service by receiving an unreduced retirement benefit prior to the time at which they would normally be expected to leave the workforce. The cost of a lifetime benefit for such individuals would be higher because the benefit would be paid over a longer period of time.

As shown below, members of the TRS would benefit from a Rule of 90 more than members of SERS or PERS because they have lower entry ages and longer service years.

Relative Value of Rule of 90 Among Retirement Systems				
System	Average Age	Average Service	Average Age at Hire	"Rule of 90" Age
TRS	44	11	33	61.5
PERS	45	10	35	62.5
SERS	46	7	39	64.5

Providing unreduced retirement benefits for the Plans 2/3 under a "rule of 90" will impact the required actuarial contribution rates as shown below. As a result of higher contribution rates, increases in funding expenditures are also projected.

Option 1: Rule of 90

	PERS	SERS	TRS	Total
Increase in Contribution Rates				
Employee (Plan 2 Only)	0.69%	0.52%	0.93%	
Employer	0.69%	0.52%	0.93%	
Cost (In Millions)				
2005-2007 Biennium				
State:				
General Fund	$21.1	$7.5	$56.8	$85.4
Non-general Fund	34.7	0.0	0.0	34.7
Total State	**$55.8**	**$7.5**	**$56.8**	**$120.1**
Local Government	49.4	6.5	11.6	67.5
Total Employer	105.2	14.0	68.4	187.6
Employee	$74.9	$3.6	$3.0	$81.5
2005-2030 25 Years				
State:				
General Fund	$591.7	$218.1	$1,544.4	$2,354.2
Non-general Fund	975.7	0.0	0.0	975.7
Total State	**$1,567.4**	**$218.1**	**$1,544.4**	**$3,329.9**
Local Government	1,389.6	193.5	316.2	1,899.3
Total Employer	2,957.0	411.6	1,860.6	5,229.2
Employee	$1,690.7	$20.7	$7.5	$1,718.9

Option 2: Unreduced retirement at age 60 with twenty years of service

This approach retains some aspects of age-based retirement, but allows a lower normal retirement age for members who have served at least twenty years. Again, this approach moves toward a more career-based retirement benefit and away from the strict adherence to age-based retirement that currently exists in the Plans 2/3.

Providing unreduced retirement benefits for members of the Plans 2/3 that have reached age 60 with twenty years of service credit will impact the required actuarial contribution rates as shown below. As a result of higher contribution rates, increases in funding expenditures are also projected.

Option 2: Unreduced Retirement at Age 60 with 20 Years of Service

	PERS	SERS	TRS	Total
Increase in Contribution Rates				
Employee (Plan 2 Only)	0.89%	1.05%	1.02%	
Employer	0.89%	1.05%	1.02%	
Cost (In Millions)				
2005-2007 Biennium				
State:				
General Fund	$27.1	$14.7	$62.3	$104.1
Non-general Fund	44.7	0.0	0.0	44.7
Total State	**$71.8**	**$14.7**	**$62.3**	**$148.8**
Local Government	63.6	13.0	12.8	89.4
Total Employer	135.4	27.7	75.1	238.2
Employee	$96.6	$7.2	$3.3	$107.1
2005-2030 25 Years				
State:				
General Fund	$762.6	$438.0	$1,693.9	$2,894.5
Non-general Fund	1,258.5	0.0	0.0	1,258.5
Total State	**$2,021.1**	**$438.0**	**$1,693.9**	**$4,153.0**
Local Government	1,792.4	388.7	346.9	2,528.0
Total Employer	3,813.5	826.7	2,040.8	6,681.0
Employee	$2,180.8	$41.7	$8.2	$2,230.7

Options that Reduce the Early Retirement Reduction Factors

Option 3: Uniform 3% ERRF

As discussed in the Age 65 Retirement Report dated September 1, 2004, the Plans 2/3 currently have a design that discourages early retirement. Those who retire early - age 55 with 20 years of service - must have their benefit actuarially reduced so as to avoid higher costs to the pension system. As a result, there is no economic benefit to retiring early. Alternatively, those who retire at 55 with 30 years of service must take a reduction for leaving early, but they are rewarded for longer service by having some of the reduction covered by the plan. This is a kind of "compromise" between the need for an age-based plan to save costs, and the desire to reward those who have worked for many years.

A uniform 3% ERRF would eliminate the actuarial reduction for early retirement benefits and replace it with an across-the-board 3% reduction for anyone who leaves at age 55 with twenty years of service. [The thirty-year service distinction would become moot.] This option would move the plan away from the current age-based retirement philosophy in the Plans 2/3 and would encourage more early retirement. Because the total benefit taken at early retirement would not be actuarially equivalent to the benefit taken at normal retirement (i.e. it would be greater), there is an additional cost to the plan. This kind of option would be more helpful to members of PERS and SERS due to the fact that those plans have older entry ages and higher turnover.

A uniform 3% ERRF will impact the required actuarial contribution rates for the Plans 2/3 as shown below. As a result of higher contribution rates, increases in funding expenditures are also projected.

Option 3: Uniform 3% ERRF

	PERS	SERS	TRS	Total
Increase in Contribution Rates				
Employee (Plan 2 Only)	1.07%	1.33%	1.41%	
Employer	1.07%	1.33%	1.41%	
Cost (In Millions)				
2005-2007 Biennium				
State:				
General Fund	$32.6	$18.5	$86.1	$137.2
Non-general Fund	53.7	0.0	0.0	53.7
Total State	**$86.3**	**$18.5**	**$86.1**	**$190.9**
Local Government	76.6	16.5	17.7	110.8
Total Employer	162.9	35.0	103.8	301.7
Employee	$116.2	$9.1	$4.5	$129.8

2005-2030 25 Years				
State:				
General Fund	$917.1	$554.6	$2,341.9	$3,813.6
Non-general Fund	1,513.2	0.0	0.0	1,513.2
Total State	**$2,430.3**	**$554.6**	**$2,341.9**	**$5,326.8**
Local Government	2,155.2	492.1	479.7	3,127.0
Total Employer	4,585.5	1,046.7	2,821.6	8,453.8
Employee	$2,621.7	$52.5	$11.4	$2,685.6

Option 4: 3% ERRF triggered at age 60 with 20 years of service

One way to reduce the plan costs associated with the uniform 3% ERRF would be to raise the age at which the 3% ERRF would be triggered from 55 to 60. This option would, however, still impact the required actuarial contribution rates for the Plans 2/3 as shown below. As a result of higher contribution rates, the increases in funding expenditures are also projected.

Option 4: 3% ERRF Triggered at Age 60 with 20 Years of Service

	PERS	SERS	TRS	Total
Increase in Contribution Rates				
Employee (Plan 2 Only)	0.50%	0.62%	0.61%	
Employer	0.50%	0.62%	0.61%	
Cost (In Millions)				
2005-2007 Biennium				
State:				
General Fund	$15.3	$8.7	$37.2	$61.2
Non-general Fund	25.2	0.0	0.0	25.2
Total State	**$40.5**	**$8.7**	**$37.2**	**$86.4**
Local Government	35.9	7.6	7.7	51.2
Total Employer	76.4	16.3	44.9	137.6
Employee	$54.3	$4.3	$2.0	$60.6

2005-2030 25 Years				
State:				
General Fund	$428.4	$258.8	$1,013.0	$1,700.2
Non-general Fund	707.3	0.0	0.0	707.3
Total State	**$1,135.7**	**$258.8**	**$1,013.0**	**$2,407.5**
Local Government	1,007.2	229.3	207.2	1,443.7
Total Employer	2,142.9	488.1	1,220.2	3,851.2
Employee	$1,224.9	$24.5	$4.9	$1,254.3

Expand Opportunities to Purchase Out-of-State Service Credit in the TRS Plans 2/3

Currently there is limited opportunity to utilize out-of-state service credit in the Plans 2/3 of the Teachers' Retirement System. As described above in the section entitled "Current Situation," Plan 2/3 members may elect to apply teaching service credit earned in an out-of-state retirement system solely for the purpose of determining the time at which the member may retire. This provision has been in effect since 1991.

Another way to utilize out-of-state retirement benefits in TRS is to purchase additional benefits with a rollover from an out-of-state retirement plan. The resulting contribution to the member reserve is actuarially converted to a monthly benefit at the time of retirement. See RCW 41.32.067. This cash-based approach has been in effect since 1992, and seeks to avoid the pension costs associated with giving lifelong benefits at a reduced cost.

The proposed expansion of service credit purchase opportunities in the Plans 2/3 would involve a more direct approach that would allow members to actually receive service credit in TRS for time worked in out-of-state systems. The proposal is focused on the TRS system alone and not the other Washington State retirement systems, presumably to address what in the past have been identified as recruitment and retention issues within the teaching profession.

Washington's Department of Personnel (DOP) has identified other public professions and job categories with recruitment and retention issues. They include the following: Therapist/Consultants, Ergonomists, Industrial Hygienists, Pressure Vessel Inspectors, Registered Nurses, Nursing Consultants (Institutional), Dentists, Physicians, Pharmacists, Pharmacist Investigators, AGO Investigators/Analysts, Investigators (Eastern Washington), Public Health Advisors, Radiation Health Physicists, Curators and IT Positions (with specialized programming requirements). See attached e-mail correspondence from Dorothy Gerard of DOP. Thus adoption of this option could lead to "leapfrogging", i.e. members and/or employers wanting the same or better benefits for other plans in other retirement systems.

Option 5: Allow members with at least 5 years of Washington State service to purchase up to 10 years of out-of-state service credit.

In developing and pricing this option, certain assumptions were made and various limitations were imposed. They are as follows:

- This option assumes a 5-year window to purchase the service credit upon completion of 5 years of service in TRS Plan 2 or 3. Since Plan 3 has 10-year vesting, implementation of this option would require a provision allowing for a refund of contributions for purchasing out-of-state service credit in the event that the member fails to vest.

- The member must not be currently receiving or currently eligible to receive a retirement benefit from another state that includes the out-of-state service credit to be purchased.

- The amount of service credit to be purchased cannot exceed 10 years or the amount of in-state service, whichever is less.

- In computing the cost of the out-of-state service credit, the interest rate is the assumed actuarial rate of return.

- This option assumes a cost that is computed very much as if the service had occurred in Washington. The Plan 2 member must pay both the employer and employee contributions with interest. The contribution rates are tied to the entry age normal cost rate instead of actual rates for the period in order to provide more consistency in pricing the service credit purchases.

- Plan 3 members would pay only the employer contribution plus interest since they receive only one-half the defined benefit (and their defined benefit is funded only by the employer). It would be necessary to provide for a refund of contributions to members who waive the defined benefit as authorized in RCW 41.32.837.

- The service credit purchased would be membership service, and may be used to qualify the member for retirement.

The amount of actual out-of-state service that members have in other systems and for which they may seek to purchase Washington service credit is unknown, as the Office of the State Actuary (OSA) has no direct access to data that is currently being collected for this purpose. This is a significant variable in determining the cost of this option. In order to make reasonable assumptions along these lines, the OSA has utilized data from an informal survey conducted by Mr. Lee Goeke of the Executive Committee of the SCPP. According to Mr. Goeke, the survey results account for about 13% of the teachers employed within the state, or 6,850 TRS members. The average out-of-state service for this group was 1.58 years. The ten-year cap lowered the average to 1.34 years for this sample.

It should be noted in the discussion of this option that purchasing out-of-state service credit is a complicated topic with many policy and fiscal implications. The topic is broad enough to be a separate issue worthy of study and discussion in the manner of other large issues that have been part of the SCPP's work plan during this interim. Many of the assumptions made for pricing this particular option were made by the OSA staff - not to usurp the SCPP as policy makers, but to provide some reasonable parameters that would allow for pricing this option in time for the October 19, 2004 meeting.

Allowing service credit for time outside the plan at less than actuarial cost will impact the required actuarial contribution rates of the TRS Plans 2/3 as shown below. As a result of higher contribution rates, increases in funding expenditures are also projected.

Expand Opportunities to Purchase Out-Of-State Service Credit in TRS Plans 2/3

	TRS	
Increase in Contribution Rates	**Low Estimate**	**High Estimate**
Employee (Plan 2 Only)	0.09%	0.16%
Employer	0.09%	0.16%

Cost (In Millions)	TRS Low Estimate	TRS High Estimate
2005-2007 Biennium		
State:		
General Fund	$5.5	$9.7
Non-general Fund	$0.0	$0.0
Total State	$5.5	$9.7
Local Government	$1.1	$1.9
Total Employer	$6.5	$11.6
Employee	$0.3	$0.5
2005-2030 25 Years		
State:		
General Fund	$149.3	$265.4
Non-general Fund	$0.0	$0.0
Total State	**$149.3**	**$265.4**
Local Government	$30.4	$54.1
Total Employer	$179.7	$319.5
Employee	$0.7	$1.3

Examples of TRS Payments for 2 years of Out-of-State Service Credit:

Plan 2 Member: $50,000 x 11.80% x (1+1.08)= **$12,272**
Plan 3 Member: $50,000 x 5.9% x (1+1.08) = **$6,136**

Assumptions and Methods:

The $50,000 is pay for a sample member. The average was around $47,000, but it varies by plan. The 11.80% for Plan 2 is the 2002 Entry Age Normal Cost (EANC), which excludes gain-sharing. The 11.80% for Plan 2 includes both the member and employer contribution. The 5.90% for Plan 3 is half the 11.80% and represents the employer EANC. The purchase of the first year has no interest. The second year interest rate is 8%. Additional years would have included compound interest.

Funding Option - 1% Plan 3 Member Contribution

In addition to pricing the above options, staff was also directed at the September 7, 2004 SCPP meeting to determine how much funding a 1% Plan 3 member contribution would provide for possible benefit enhancements in the Plans 2/3. This "funding option" was specifically raised in connection with proposed options 1 and 2 discussed above ("rule of 90" and unreduced retirement at age 60 with 20 years of service).

This funding approach should be examined in the context of existing funding policy in order to assess the impacts of the proposal. The actuarial funding chapter (Chapter 41.45 RCW) codifies certain funding policies that are currently applicable to the Plans 2/3. They include the following:

(1) to continue to fully fund the plans 2/3;

(2) to establish predictable long-term employer contribution rates which will remain a relatively constant proportion of future state budgets; and

(3) to fund all benefit increases over the working lives of the members so that the cost of those benefits are paid by the taxpayers who receive the benefit of those members' service.

The other major funding policy applicable to the plans 2/3 can be gleaned from examining the records of the Joint Committee on Pension Policy (JCPP). The Plan II Retirement Age Report (October 1992) identified certain dissatisfaction with the Plans 2 and was followed by the JCPP's 1993 Proposed Retirement Benefit Policies for the possible new Plans 3. The JCPP proposal included continuation of the Plan 2 funding policy that costs should be shared equally between employees and employers. This **cost-sharing policy** was implemented in both the plan design for the Plans 3 and in the funding practices adopted by the legislature over time.

In addition, the Plans 2/3 were designed to include an **equivalent employer-provided benefit.** As provided in the JCPP's 1993 Proposed Policies, the Plans 3 were intended to continue the Plan 2 policy that all state and local employees should have essentially the same retirement plans. The way to keep the Plan 3 benefits equivalent to Plan 2 benefits was to assure that the employer-provided defined benefit was same in both plans. Thus both Plan 2 and Plan 3 employers fund a defined benefit that is equal to 1% of average final compensation (AFC). The commitment to Plan 2/3 equivalency carries over into the **structure of the retirement trust funds** for the Plans. The Plan 2/3 trust funds are combined for PERS, TRS and SERS respectively. <u>See</u> e.g. RCW 43.84.092(4)(a) and RCW 41.45.050(4), (5) and (6).

If a specific option to improve benefits in the Plans 2/3 were adopted, along with legislation mandating a 1% Plan 3 member contribution to help pay for the benefit, the following impacts would occur. This approach to funding would require a significant restructuring of the design for the Plans 2/3 as well as changes to basic funding policies.

- There would be a deviation from the cost-sharing policy. Plan 3 employees would be paying more for an improvement to the defined benefit than employers would pay for that same plan improvement.

- Plan 3 members would be paying more than Plan 2 members for the same employer-provided benefit.

- The Plans 2/3 would no longer be essentially equivalent. PERS members who chose to transfer to Plan 3 may regret their decisions and there may be both legal and political pressure to provide some kind of relief to those Plan 3 members. Those who are mandated into the Plans 3 may seek recourse for having to pay for increased Plan 2 benefits, especially if contribution rates for Plan 2 members are not affected.

- In order for the Plan 3 member contributions to be used to offset the costs of the benefit improvements, it would be necessary to provide for the payment of Plan 3 member contributions into the defined benefit trust fund. Currently, all Plan 3 member contributions are paid into the member's defined contribution accounts.

- If 1% of Plan 3 member contributions were mandated into the trust fund, there is a question about whether these funds should be part of a combined Plan 2/3 trust fund. The trust funds may have to be split. This would also deviate from the existing policy constraint of maintaining equivalent benefits for all public employees.

- The payment of a mandatory 1% Plan 3 member contribution could impact the permissible annual amounts that Plan 3 members may contribute to their defined contribution accounts.

- Significant amendments would be required to current plan provisions.
- Significant administrative and communication impacts would be generated.

A mandatory 1% Plan 3 member contribution would generate the following amounts in dollars for TRS, SERS and PERS.

Funding Option - 1% Plan 3 Member Contributions

	PERS	SERS	TRS	Total
Increase in Contribution Rates				
Employee (Plan 3 Only)	1.00%	1.00%	1.00%	
Employer	0.00%	0.00%	0.00%	
Cost (In Millions)				
2005-2007 Biennium				
Employee (Plan 3 Only)	\$32.0	\$18.0	\$62.6	\$112.6
2005-2030 25 Years				
Employee (Plan 3 Only)	\$1,799.8	\$740.4	\$1,973.5	\$4,513.7

Age 65 Retirement
Probability of Service Retirement

(October 18, 2004)

Option 1: Rule of 90

Kicker Added to Retirement Probability						
	PERS Male	PERS Female	SERS Male	SERS Female	TRS Male	TRS Female
Age						
55	0.35	0.29	0.30	0.30	0.30	0.30
56	0.35	0.29	0.30	0.30	0.30	0.30
57	0.35	0.29	0.30	0.30	0.30	0.30
58	0.29	0.22	0.30	0.30	0.30	0.30
59	0.29	0.22	0.30	0.30	0.30	0.30
60	0.29	0.22	0.30	0.30	0.30	0.30
61	0.29	0.22	0.25	0.30	0.30	0.30
62	0.29	0.16	0.25	0.20	0.30	0.20
63	0.11	0.16	0.25	0.20	0.25	0.20
64	0.11	0.16	0.25	0.20	0.25	0.20

The kicker is added to the retirement probability when first eligible for the Rule of 90. For each year after the year first eligible, 25% of the kicker is added.

Option 2: Unreduced Retirement at Age 60 with 20 Years of Service

	Current Assumptions						Age 60 with 20 Years of Service								
	PERS	PERS	SERS	SERS	TRS	TRS	PERS	PERS	PERS	SERS	SERS	SERS	TRS	TRS	TRS
	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male
								>=20			>=20			>=20	
Age	<30	>=30	<30	>=30	<30	>=30	<20	<30	>=30	<20	<30	>=30	<20	<30	>=30
54			0.02	0.04	0.05	0.08				0.02	0.02	0.04	0.05	0.05	0.08
55	0.05	0.07	0.05	0.07	0.05	0.08	0.05	0.05	0.07	0.05	0.05	0.07	0.05	0.05	0.08
56	0.05	0.07	0.05	0.07	0.05	0.08	0.05	0.05	0.07	0.05	0.05	0.07	0.05	0.05	0.08
57	0.05	0.07	0.05	0.07	0.05	0.08	0.05	0.05	0.07	0.05	0.05	0.07	0.05	0.05	0.08
58	0.10	0.14	0.10	0.14	0.05	0.08	0.10	0.10	0.14	0.10	0.10	0.14	0.05	0.05	0.08
59	0.10	0.14	0.10	0.14	0.20	0.30	0.10	0.10	0.14	0.10	**0.20**	0.14	0.20	**0.38**	0.30
60	0.14	0.21	0.14	0.21	0.40	0.60	0.14	**0.22**	0.21	0.14	**0.20**	0.21	0.40	**0.63**	0.60
61	0.14	0.21	0.14	0.21	0.30	0.45	0.14	**0.22**	0.21	0.14	**0.45**	0.21	0.30	**0.47**	0.45
62	0.33	0.50	0.33	0.50	0.30	0.45	0.33	**0.49**	0.50	0.33	**0.30**	0.50	0.30	**0.38**	0.45
63	0.26	0.39	0.26	0.39	0.60	0.90	0.26	**0.44**	0.39	0.26	**0.38**	0.39	0.60	**0.80**	0.90
64	0.79	0.90	0.79	0.90	0.50	0.50	0.79	**0.90**	0.90	0.79	**0.90**	0.90	0.50	**0.50**	0.50
65	0.52	0.52	0.52	0.52	0.50	0.50	0.52	0.52	0.52	0.52	0.52	0.52	0.50	0.50	0.50
66	0.30	0.30	0.30	0.30	0.50	0.50	0.30	0.30	0.30	0.30	0.30	0.30	0.50	0.50	0.50
67	0.22	0.22	0.22	0.22	0.50	0.50	0.22	0.22	0.22	0.22	0.22	0.22	0.50	0.50	0.50
68	0.22	0.22	0.22	0.22	0.50	0.50	0.22	0.22	0.22	0.22	0.22	0.22	0.50	0.50	0.50
69	0.26	0.26	1.00	1.00	1.00	1.00	0.26	0.26	0.26	1.00	1.00	1.00	1.00	1.00	1.00
70+	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Option 2: Unreduced Retirement at Age 60 with 20 Years of Service

	Current Assumptions						Age 60 with 20 Years of Service								
	PERS Female	PERS Female	SERS Female	SERS Female	TRS Female	TRS Female	PERS Female	PERS Female	PERS Female	SERS Female	SERS Female	SERS Female	TRS Female	TRS Female	TRS Female
Age	<30	>=30	<30	>=30	<30	>=30	<20	>=20 <30	>=30	<20	>=20 <30	>=30	<20	>=20 <30	>=30
54			0.02	0.04	0.03	0.05				0.02	0.04	0.04	0.03	0.05	0.05
55	0.05	0.07	0.05	0.07	0.05	0.08	0.05	0.05	0.07	0.05	0.07	0.07	0.05	0.08	0.08
56	0.05	0.07	0.05	0.07	0.10	0.15	0.05	0.05	0.07	0.05	0.07	0.07	0.10	0.15	0.15
57	0.05	0.07	0.05	0.07	0.10	0.15	0.05	0.05	0.07	0.05	0.07	0.07	0.10	0.15	0.15
58	0.05	0.07	0.05	0.07	0.10	0.15	0.05	0.05	0.07	0.05	0.07	0.07	0.10	0.15	0.15
59	0.05	0.07	0.05	0.07	0.15	0.23	0.05	0.05	0.07	0.05	**0.25**	0.07	0.15	**0.34**	0.23
60	0.14	0.21	0.14	0.21	0.20	0.30	0.14	**0.27**	0.21	0.14	**0.20**	0.21	0.20	**0.31**	0.30
61	0.18	0.27	0.18	0.27	0.30	0.45	0.18	**0.24**	0.27	0.18	**0.35**	0.27	0.30	**0.33**	0.45
62	0.30	0.45	0.30	0.45	0.30	0.45	0.30	**0.52**	0.45	0.30	**0.35**	0.45	0.30	**0.50**	0.45
63	0.26	0.39	0.26	0.39	0.50	0.75	0.26	**0.44**	0.39	0.26	**0.44**	0.39	0.50	**0.75**	0.75
64	0.82	0.90	0.82	0.90	0.50	0.50	0.82	**0.90**	0.90	0.82	**0.90**	0.90	0.50	**0.50**	0.50
65	0.49	0.49	0.49	0.49	0.30	0.30	0.49	0.49	0.49	0.49	0.49	0.49	0.30	0.30	0.30
66	0.30	0.30	0.30	0.30	0.25	0.25	0.30	0.30	0.30	0.30	0.30	0.30	0.25	0.25	0.25
67	0.26	0.26	0.26	0.26	0.25	0.25	0.26	0.26	0.26	0.26	0.26	0.26	0.25	0.25	0.25
68	0.26	0.26	0.26	0.26	0.40	0.40	0.26	0.26	0.26	0.26	0.26	0.26	0.40	0.40	0.40
69	0.22	0.22	1.00	1.00	1.00	1.00	0.22	0.22	0.22	1.00	1.00	1.00	1.00	1.00	1.00
70+	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Option 3: Uniform 3% ERRF

	Current Assumptions						Uniform 3% ERF					
	PERS Male	PERS Male	SERS Male	SERS Male	TRS Male	TRS Male	PERS Male	PERS Male	SERS Male	SERS Male	TRS Male	TRS Male
Age	<30	>=30	<30	>=30	<30	>=30	<30	>=30	<30	>=30	<30	>=30
54			0.02	0.04	0.05	0.08			**0.04**	0.04	**0.08**	0.08
55	0.05	0.07	0.05	0.07	0.05	0.08	**0.07**	0.07	**0.07**	0.07	**0.08**	0.08
56	0.05	0.07	0.05	0.07	0.05	0.08	**0.07**	0.07	**0.07**	0.07	**0.08**	0.08
57	0.05	0.07	0.05	0.07	0.05	0.08	**0.07**	0.07	**0.07**	0.07	**0.08**	0.08
58	0.10	0.14	0.10	0.14	0.05	0.08	**0.14**	0.14	**0.14**	0.14	**0.08**	0.08
59	0.10	0.14	0.10	0.14	0.20	0.30	**0.14**	0.14	**0.14**	0.14	**0.30**	0.30
60	0.14	0.21	0.14	0.21	0.40	0.60	**0.21**	0.21	**0.21**	0.21	**0.60**	0.60
61	0.14	0.21	0.14	0.21	0.30	0.45	**0.21**	0.21	**0.21**	0.21	**0.45**	0.45
62	0.33	0.50	0.33	0.50	0.30	0.45	**0.50**	0.50	**0.50**	0.50	**0.45**	0.45
63	0.26	0.39	0.26	0.39	0.60	0.90	**0.39**	0.39	**0.39**	0.39	**0.90**	0.90
64	0.79	0.90	0.79	0.90	0.50	0.50	**0.90**	0.90	**0.90**	0.90	**0.50**	0.50
65	0.52	0.52	0.52	0.52	0.50	0.50	0.52	0.52	0.52	0.52	0.50	0.50
66	0.30	0.30	0.30	0.30	0.50	0.50	0.30	0.30	0.30	0.30	0.50	0.50
67	0.22	0.22	0.22	0.22	0.50	0.50	0.22	0.22	0.22	0.22	0.50	0.50
68	0.22	0.22	0.22	0.22	0.50	0.50	0.22	0.22	0.22	0.22	0.50	0.50
69	0.26	0.26	1.00	1.00	1.00	1.00	0.26	0.26	1.00	1.00	1.00	1.00
70	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Option 3: Uniform 3% ERRF

	Current Assumptions						Uniform 3% ERF					
	PERS Female	PERS Female	SERS Female	SERS Female	TRS Female	TRS Female	PERS Female	PERS Female	SERS Female	SERS Female	TRS Female	TRS Female
Age	<30	>=30	<30	>=30	<30	>=30	<30	>=30	<30	>=30	<30	>=30
54			0.02	0.04	0.03	0.05			**0.04**	0.04	**0.05**	0.05
55	0.05	0.07	0.05	0.07	0.05	0.08	**0.07**	0.07	**0.07**	0.07	**0.08**	0.08
56	0.05	0.07	0.05	0.07	0.10	0.15	**0.07**	0.07	**0.07**	0.07	**0.15**	0.15
57	0.05	0.07	0.05	0.07	0.10	0.15	**0.07**	0.07	**0.07**	0.07	**0.15**	0.15
58	0.05	0.07	0.05	0.07	0.10	0.15	**0.07**	0.07	**0.07**	0.07	**0.15**	0.15
59	0.05	0.07	0.05	0.07	0.15	0.23	**0.07**	0.07	**0.07**	0.07	**0.23**	0.23
60	0.14	0.21	0.14	0.21	0.20	0.30	**0.21**	0.21	**0.21**	0.21	**0.30**	0.30
61	0.18	0.27	0.18	0.27	0.30	0.45	**0.27**	0.27	**0.27**	0.27	**0.45**	0.45
62	0.30	0.45	0.30	0.45	0.30	0.45	**0.45**	0.45	**0.45**	0.45	**0.45**	0.45
63	0.26	0.39	0.26	0.39	0.50	0.75	**0.39**	0.39	**0.39**	0.39	**0.75**	0.75
64	0.82	0.90	0.82	0.90	0.50	0.50	**0.90**	0.90	**0.90**	0.90	**0.50**	0.50
65	0.49	0.49	0.49	0.49	0.30	0.30	0.49	0.49	0.49	0.49	0.30	0.30
66	0.30	0.30	0.30	0.30	0.25	0.25	0.30	0.30	0.30	0.30	0.25	0.25
67	0.26	0.26	0.26	0.26	0.25	0.25	0.26	0.26	0.26	0.26	0.25	0.25
68	0.26	0.26	0.26	0.26	0.40	0.40	0.26	0.26	0.26	0.26	0.40	0.40
69	0.22	0.22	1.00	1.00	1.00	1.00	0.22	0.22	1.00	1.00	1.00	1.00
70+	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Option 4: 3% ERRF Triggered at Age 60 with 20 Years of Service

	Current Assumptions						**3% ERRF at Age 60 with 20 Years of Service**								
	PERS	PERS	SERS	SERS	TRS	TRS	PERS	PERS	PERS	SERS	SERS	SERS	TRS	TRS	TRS
	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male
								>=20			>=20			>=20	
Age	<30	>=30	<30	>=30	<30	>=30	<20	<30	>=30	<20	<30	>=30	<20	<30	>=30
54			0.02	0.04	0.05	0.08				0.02	0.02	0.04	0.05	0.05	0.08
55	0.05	0.07	0.05	0.07	0.05	0.08	0.05	0.05	0.07	0.05	0.05	0.07	0.05	0.05	0.08
56	0.05	0.07	0.05	0.07	0.05	0.08	0.05	0.05	0.07	0.05	0.05	0.07	0.05	0.05	0.08
57	0.05	0.07	0.05	0.07	0.05	0.08	0.05	0.05	0.07	0.05	0.05	0.07	0.05	0.05	0.08
58	0.10	0.14	0.10	0.14	0.05	0.08	0.10	0.10	0.14	0.10	0.10	0.14	0.05	0.05	0.08
59	0.10	0.14	0.10	0.14	0.20	0.30	0.10	0.10	0.14	0.10	**0.14**	0.14	0.20	**0.30**	0.30
60	0.14	0.21	0.14	0.21	0.40	0.60	0.14	**0.21**	0.21	0.14	**0.21**	0.21	0.40	**0.60**	0.60
61	0.14	0.21	0.14	0.21	0.30	0.45	0.14	**0.21**	0.21	0.14	**0.21**	0.21	0.30	**0.45**	0.45
62	0.33	0.50	0.33	0.50	0.30	0.45	0.33	**0.50**	0.50	0.33	**0.50**	0.50	0.30	**0.45**	0.45
63	0.26	0.39	0.26	0.39	0.60	0.90	0.26	**0.39**	0.39	0.26	**0.39**	0.39	0.60	**0.90**	0.90
64	0.79	0.90	0.79	0.90	0.50	0.50	0.79	**0.90**	0.90	0.79	**0.90**	0.90	0.50	**0.50**	0.50
65	0.52	0.52	0.52	0.52	0.50	0.50	0.52	0.52	0.52	0.52	0.52	0.52	0.50	0.50	0.50
66	0.30	0.30	0.30	0.30	0.50	0.50	0.30	0.30	0.30	0.30	0.30	0.30	0.50	0.50	0.50
67	0.22	0.22	0.22	0.22	0.50	0.50	0.22	0.22	0.22	0.22	0.22	0.22	0.50	0.50	0.50
68	0.22	0.22	0.22	0.22	0.50	0.50	0.22	0.22	0.22	0.22	0.22	0.22	0.50	0.50	0.50
69	0.26	0.26	1.00	1.00	1.00	1.00	0.26	0.26	0.26	1.00	1.00	1.00	1.00	1.00	1.00
70+	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Option 4: 3% ERRF Triggered at Age 60 with 20 Years of Service

	Current Assumptions						3% ERF at Age 60 with 20 Years of Service								
	PERS Female	PERS Female	SERS Female	SERS Female	TRS Female	TRS Female	PERS Female	PERS Female >=20	PERS Female	SERS Female	SERS Female >=20	SERS Female	TRS Female	TRS Female >=20	TRS Female
Age	<30	>=30	<30	>=30	<30	>=30	<20	<30	>=30	<20	<30	>=30	<20	<30	>=30
54			0.02	0.04	0.03	0.05				0.02	0.02	0.04	0.03	0.03	0.05
55	0.05	0.07	0.05	0.07	0.05	0.08	0.05	0.05	0.07	0.05	0.05	0.07	0.05	0.05	0.08
56	0.05	0.07	0.05	0.07	0.10	0.15	0.05	0.05	0.07	0.05	0.05	0.07	0.10	0.10	0.15
57	0.05	0.07	0.05	0.07	0.10	0.15	0.05	0.05	0.07	0.05	0.05	0.07	0.10	0.10	0.15
58	0.05	0.07	0.05	0.07	0.10	0.15	0.05	0.05	0.07	0.05	0.05	0.07	0.10	0.10	0.15
59	0.05	0.07	0.05	0.07	0.15	0.23	0.05	0.05	0.07	0.05	**0.07**	0.07	0.15	**0.23**	0.23
60	0.14	0.21	0.14	0.21	0.20	0.30	0.14	**0.21**	0.21	0.14	**0.21**	0.21	0.20	**0.30**	0.30
61	0.18	0.27	0.18	0.27	0.30	0.45	0.18	**0.27**	0.27	0.18	**0.27**	0.27	0.30	**0.45**	0.45
62	0.30	0.45	0.30	0.45	0.30	0.45	0.30	**0.45**	0.45	0.30	**0.45**	0.45	0.30	**0.45**	0.45
63	0.26	0.39	0.26	0.39	0.50	0.75	0.26	**0.39**	0.39	0.26	**0.39**	0.39	0.50	**0.75**	0.75
64	0.82	0.90	0.82	0.90	0.50	0.50	0.82	**0.90**	0.90	0.82	**0.90**	0.90	0.50	**0.50**	0.50
65	0.49	0.49	0.49	0.49	0.30	0.30	0.49	0.49	0.49	0.49	0.49	0.49	0.30	0.30	0.30
66	0.30	0.30	0.30	0.30	0.25	0.25	0.30	0.30	0.30	0.30	0.30	0.30	0.25	0.25	0.25
67	0.26	0.26	0.26	0.26	0.25	0.25	0.26	0.26	0.26	0.26	0.26	0.26	0.25	0.25	0.25
68	0.26	0.26	0.26	0.26	0.40	0.40	0.26	0.26	0.26	0.26	0.26	0.26	0.40	0.40	0.40
69	0.22	0.22	1.00	1.00	1.00	1.00	0.22	0.22	0.22	1.00	1.00	1.00	1.00	1.00	1.00
70+	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00